

What is claimed is:

1. A computer-implemented method of network collaboration through embedded annotation and rendering instructions to generate, transmit, and render collaborative content, the method comprising the steps of:

generating a collaborative content including a base document and at least one collaborative content element;

rendering said collaborative content; and

transmitting said collaborative content between client workstations.

2. The method as claimed in claim 1 further comprising the steps of:

annotating said collaborative content by adding another collaborative content element.

3. The method as claimed in claim 2 wherein said annotating step comprises presenting annotation options to said client workstation.

4. The method as claimed in claim 2 wherein said annotating step comprises inputting a text element to name said collaborative content element.

5. The method as claimed in claim 2 wherein said annotating steps comprises inputting a text input element to generate text as said collaborative element.

6. The method as claimed in claim 2 wherein said annotating steps comprises providing a visual cue to indicate the state of said collaborative content composition step.

7. The method as claimed in claim 6 wherein said visual cue comprises at least one of a marker, cursor, icon, and marquee box.

8. The method as claimed in claim 1 wherein said transmitting step is initiated by a user selecting a visual element to transmit said collaborative content.

9. The method as claimed in claim 1 wherein said client workstation includes at least one of a personal computer equipped with internet browser software, a mobile communication device with a graphical or textual display, and a personal digital assistant equipped with a hypertext viewer.

10. The method as claimed in claim 1 wherein said client workstation includes a program execution capability comprising:

- an interpreted software program;
- a compiled software program; and
- a software program executed by a virtual machine.

11. The method as claimed in claim 1 wherein said transmitting step is performed using a messaging system.

12. The method as claimed in claim 11 wherein said messaging system includes at least one of:

- an electronic mail system;
- an electronic news or bulletin-board system; and
- a mobile paging system.

13. The method as claimed in claim 1 wherein said transmitting step is performed using a transport mechanism including at least one of:

- an internet protocol;
- a wireless protocol;
- a synchronous messaging protocol; and
- an asynchronous messaging protocol.

14. The method as claimed in claim 1 wherein said rendering step is performed on a client workstation.

14. The method as claimed in claim 1 wherein said rendering step is performed on a server.

15. The method as claimed in claim 1 wherein the collaborative content transmitted in said transmitting step includes a URL and rendering instructions.

16. A network collaboration tool using embedded annotation and rendering instructions comprising:

a web browser software for displaying collaborative content;

a graphical collaboration tool for generating at least one collaborative content element on the collaborative content displayed in said web browser software and transmitting the at least one collaborative content element; and

a server process for receiving at least one generated collaborative content elements, rendering the collaborative content in combination with the collaborative content elements, and generating a combined collaborative content including collaborative content elements for display by said web browser software.

17. The network collaboration tool as claimed in claim 16 wherein said graphical collaboration tool includes a toolbar.

18. The network collaboration tool as claimed in claim 17 wherein said toolbar includes an add circle tool, an add rectangle tool, an add arrow tool, an add text tool, and an add text highlight tool.

19. The network collaboration tool as claimed in claim 16 wherein said graphical collaboration tool includes a collaborative content element name entry field.

20. The network collaboration tool as claimed in claim 16 wherein said web browser software, said graphical collaboration tool, and said server process execute on the same computer system.

21. The network collaboration tool as claimed in claim 16 wherein said web browser software, said graphical collaboration tool, and said server process each execute on a separate computer system.

22. A system for network collaboration using embedded annotation and rendering instructions comprising:

a processor for receiving and transmitting data; and

a memory coupled to the processor, said memory having stored therein sequences of instructions which, when executed by said processor, cause said processor to generate a collaborative content including a base document and at least one collaborative content element, render the collaborative content, and transmit the collaborative content between client workstations.

23. The system as claimed in claim 22 wherein said memory further comprises sequences of instructions which, when executed by said processor, cause said processor to:

annotate the collaborative content by adding another collaborative content element.

24. The system as claimed in claim 23 wherein said annotate instructions comprise presenting annotation options to a user at the client workstation.

25. The system as claimed in claim 23 wherein said annotate instructions comprise inputting a text element to name said collaborative content element.

26. The system as claimed in claim 23 wherein said annotate instructions comprise inputting a text input element to generate text as said collaborative element.

27. The system as claimed in claim 23 wherein said annotate instructions comprise providing a visual cue to indicate the state of said collaborative content composition step.

28. The system as claimed in claim 27 wherein the visual cue comprises at least one of a marker, cursor, icon, and marquee box.

29. The system as claimed in claim 22 wherein said transmit instruction is initiated by a user selecting a visual element to transmit the collaborative content.

30. The system as claimed in claim 22 wherein the client workstation includes at least one of a personal computer equipped with internet browser software, a mobile communication device with a graphical or textual display, and a personal digital assistant equipped with a hypertext viewer.

31. The system as claimed in claim 22 wherein the client workstation includes a program execution capability comprising:

- an interpreted software program;
- a compiled software program; and
- a software program executed by a virtual machine.

32. The system as claimed in claim 22 wherein the transmit instruction is performed using a messaging system.

33. The system as claimed in claim 32 wherein the messaging system includes at least one of:

- an electronic mail system;
- an electronic news or bulletin-board system; and
- a mobile paging system.

34. The system as claimed in claim 22 wherein the transmit instruction is performed using a transport mechanism including at least one of:

- an internet protocol;

- a wireless protocol;
- a synchronous messaging protocol; and
- an asynchronous messaging protocol.

35. The system as claimed in claim 22 wherein the render instruction is performed on a client workstation.

36. The system as claimed in claim 22 wherein the render instruction is performed on a server.

37. The system as claimed in claim 22 wherein the collaborative content transmitted includes a URL and rendering instructions.

38. The system as claimed in claim 22 wherein said sequences of instructions include at least one of a client-side scripting language.

39. The system as claimed in claim 22 wherein said sequences of instructions include at least one of Javascript and dynamic HTML.

40. A client system for network collaboration comprising:

a collaborative content; and

a graphical collaboration tool for generating, transmitting, and rendering said collaborative content wherein said graphical collaboration tool is downloaded from a server.

41. The client system as claimed in claim 40 wherein said collaborative content is referencable by a URL.

42. The client system as claimed in claim 40 wherein said graphical collaboration tool includes a client-side scripting language.

43. The client system as claimed in claim 40 wherein said graphical collaboration tool includes at least one of Javascript and dynamic HTML.

44. The client system as claimed in claim 40 wherein said collaborative content includes a URL of a base document and a representation of a collaborative content element.

45. The client system as claimed in claim 40 wherein said graphical collaboration tool, in response to a user manipulating said graphical collaboration tool to add a collaborative content element, transmits a representation of the collaborative content element and the URL of said collaborative content to a server and receives from the server said collaborative content including the added collaborative content element.

46. The client system as claimed in claim 40 wherein said graphical collaboration tool, in response to a user manipulating said graphical collaboration tool to modify a collaborative content element, transmits a representation of the collaborative content element and the URL of said collaborative content to a server and receives from the server said collaborative content including the modified collaborative content element.

47. The client system as claimed in claim 40 wherein said graphical collaboration tool includes a toolbar.

48. The client system as claimed in claim 47 wherein the toolbar includes an add circle tool, an add rectangle tool, an add arrow tool, an add text tool, and an add text highlight tool.

49. The client system as claimed in claim 47 wherein the toolbar includes a collaborative content element name entry field.

50. The client system as claimed in claim 45 wherein said collaborative content received from the server includes an HTML page.

51. The client system as claimed in claim 46 wherein said collaborative content received from the server includes an HTML page.

52
51.

A server system for network collaboration comprising:

a collaborative content; and

a server process for responding to a user request wherein the user request includes at least one of a request for said collaborative content, a graphical collaboration tool, said collaborative content including an added collaborative content element, and said collaborative content including a modified collaborative content element.

53
52.

The server system as claimed in claim 51 wherein said collaborative content is referencable by a URL.

54
53.

The server system as claimed in claim 51 wherein said server process is a CGI script.

55
54.

The server system as claimed in claim 51 wherein said collaborative content includes a URL of a base document and a representation of a collaborative content element.

56
55.

The server system as claimed in claim 51 wherein said server process executes on a client workstation of a user.

57
56.

The server system as claimed in claim 51 wherein said collaborative content transmitted in response to a user request includes an HTML page.

TELETYPE UNIT